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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,762	06/10/2005	Yasushi Maruta	Q88418	5545

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EXAMINER

PHAM, TUAN

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/538,762	Applicant(s) MARUTA, YASUSHI	
	Examiner TUAN A. PHAM	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,21 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 2-20,22-31 and 35-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/10/2005 has been considered by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 21, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsui et al. (US Patent No.: 6,385,181, hereinafter, "Tsutsui") in view of Admitted Prior Art.**

Regarding claims 1 and 21, Tsutsui teaches a multibeam antenna reception device comprising (see figure 11):

a receiving array antenna including N (N: an integer not less than 1) receiving antenna elements (see figure 11, receiving array antenna 21, antenna elements 21-1 to 21-N),

N radio receiver sections corresponding to the receiving antenna elements, respectively (see figure 11, radio receiver 22-1 to 22-N);

M (M: an integer not less than 1) receive beam forming sections (see figure 11, beam former 23, B1-B-M); and

wherein, at the time of the detection of a path (see path detector 29d) defined by a pair of a receive beam number as an arrival direction (receiving signal from receiver 22-1) and a path delay (delay signal) as arrival timing with respect to the multipath of each user, the path detection range at the current time is controlled based on information on paths detected prior to the current time (see figure 11, path detector 29d, beam selection controller 28 is control the path, col.11, ln.62-67, col.12, ln.1-63).

It should be noticed that Tsutsui fails to teach L (L: an integer not less than 1) user demodulation blocks. However, Admitted Prior Art teaches such features (see figure 1, demodulation block 205).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Admitted Prior Art into view of Tsutsui in order to process of retrieving an electrical signal from a carrier signal.

Regarding claim 32, Tsutsui further teaches the path detection range is confined based on one or more pairs of receive beam numbers and path delays previously detected, which are selected according to a certain standard, and information on user signal reception quality in the pairs of the receive beam numbers and the path delays (see figure 11, figure 12, selector 24a is selecting the beam signal and delay signal, col.12, ln.1-63).

Regarding claim 33, Tsutsui further teaches the pair of the receive beam number and the path delay previously detected which is selected according to a certain

standard, at least one pair of a receive beam number and a path delay excellent in user signal reception quality is selected (see figure 11, figure 12, detector 29a, selector 24a is selecting the beam signal and delay signal, col.12, ln.1-63).

Regarding claim 34, Tsutsui further teaches the pair of the receive beam number and the path delay previously detected which is selected according to a certain standard, at least one pair of a receive beam number and a path delay in the multibeam reception which the user signal reception quality meets a certain standard of reception quality is selected (see figure 11, figure 12, detector 29a, selector 24a is selecting the beam signal and delay signal, col.12, ln.1-63).

Allowable Subject Matter

5. Claims 2-20, 22-31, and 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Hendler (U.S. Pub. No. 2002/0024975) is not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is

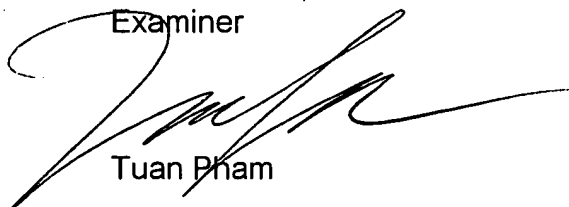
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(571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

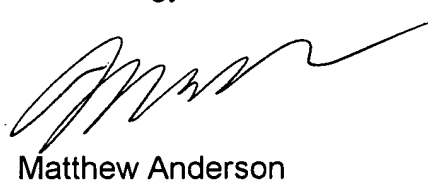
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
December 12, 2006
Examiner



Tuan Pham

Supervisory Patent Examiner
Technology Center 2600



Matthew Anderson